APPENDIX F. USING STUDENT DATA EXPORT FILES WITH MICROSOFT ACCESS

The Student Data Export option (with two sub-options, By Class and History) exists under the Reports option of the Student Management module. This option enables you to select various kinds of personal, service, training, qualification, and performance information about students in a class for placement in a text file. The copied file can then be imported into Microsoft Access or Excel. From there, you can use the imported data to perform queries, create statistical analyses, establish ad hoc reports, and to satisfy other requirements unique to each school. Refer to Paragraph 8.5.16, Student Data Export, for instructions on creating the export file.

   This appendix describes how to establish a database Table in Microsoft Access and import student data from MCAIMS into the Table. Once established, subsequent Student Data Exports can be appended to an existing Table if the field names and fields in the Student Data Export file already exist in the Microsoft Access Table. Therefore, Microsoft Access Tables may represent information covering multiple classes.

   If you wish to create a Microsoft Access Table containing a combination of data available for export from MCAIMS and other data unique to your mission, you must follow these two guidelines:

- The field names and fields in the MCAIMS Student Data Export must exist identically in characteristics in the existing Microsoft Access Table; in particular, the field name must be identical.

- During the Import process, the option "First Row Contains Field Names" must be selected.

   The explanation in this appendix is very basic and is designed to guide you through creating a Table in Design view. Microsoft Access offers significantly more options than discussed herein. If you have different goals and levels of experience with Microsoft Access, just apply the general concepts and advice presented in this appendix to your unique requirements. If you choose to manually design a Microsoft Access Table and do not use the same field names and/or correct data types, you must be experienced in establishing Import/Export Specifications to append a Data Export file created by MCAIMS.

   Note that MCAIMS technical support is limited to establishing a Table in Access in order to exploit the imported student data. Be sure that you take advantage of the training and information available through your local education programs, system documentation, tutorials, and other support in establishing proficiency with Microsoft Access and/or Excel.

   Finally, be careful that imported data does not become the source of additional self-imposed work resulting in maintenance of information in parallel systems or that this data becomes the primary focus for data maintenance. Data exported from MCAIMS should continue to be maintained within MCAIMS as the primary and authoritative source of current and historical data.

F.1 Set Up Your PC for Compatibility With Date Format

     Before you begin working with Microsoft Access to import MCAIMS files,
ensure that the Short Date format for your operation system is set to the
YYYY/MM/DD format. Using the Windows 2000 operating system as an example,
the Short Date format can be established by following the steps below.

     1. Click on the **Start** button.

     2. Choose the Control Panel option.

     3. Choose the Regional Settings option.

     4. Choose the Date tab. The Regional Options dialog box (Figure F-1)
         appears.
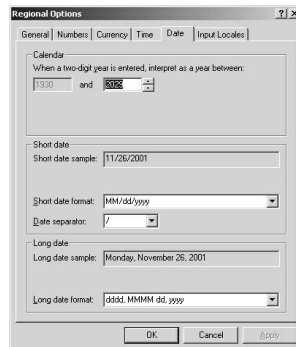
Figure F-1. Regional Options

     5. Set the Short Date Format to "yyyy/mm/dd" and the Date Separator to
         "/" and then click on the **OK** button. The content of the fields of
         information representing Dates in the Student Data Export files
         will automatically be recognized as true Date fields by
         applications such as Microsoft Access.

F.2 Using Student Data Export Files with Microsoft Access

The following steps guide you through creating a Table in Microsoft Access
and importing a Student Data Export file into it. Be sure that you have
already established your export file in MCAIMS before you begin.

     1. Open the Microsoft Access program. The Microsoft Access screen is
         displayed with a Microsoft Access dialog box (Figure F-2) appearing
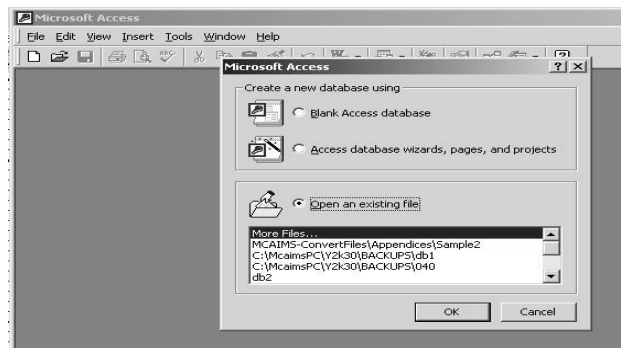   on the screen.

Figure F-2. Microsoft Access Screen with Dialog Box

2. Click on **Cancel**. The dialog box disappears from the screen.

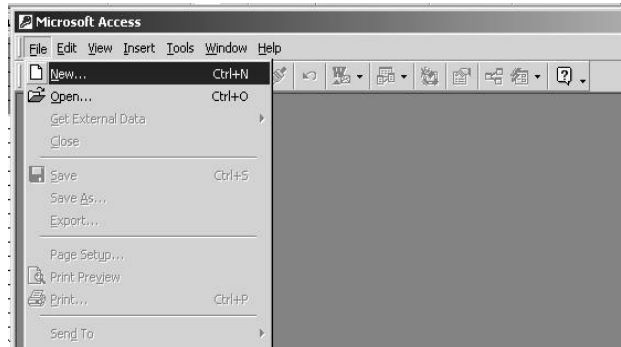3. Choose File. The File menu items are displayed (Figure F-3).

Figure F-3 Microsoft Access

4. Under File, choose New to create a new database file. The Mew dialog box (Figure F-4) then appears on the Microsoft Access screen.
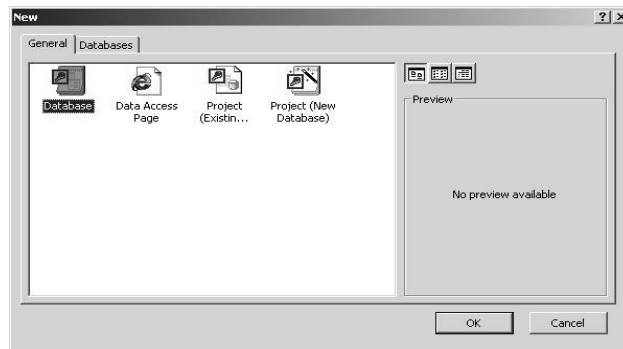

Figure F-4. New

5. Choose the icon titled "Database" and click on **OK**. The File New Database dialog box (Figure F-5) appears.
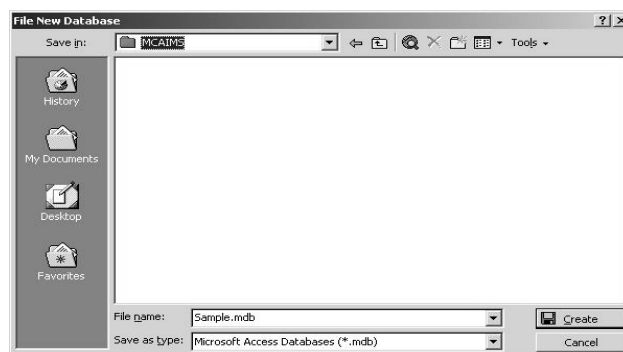

Figure F-5. File New Database

6. In the field titled "File Name" at the bottom of the dialog box, name the file you wish to create and designate its location. [Note that the extension will be .mdb for this Microsoft database file.] Then click on **Create**. The new database dialog box with options for database table creation (Figure F-6, Create Table) appears on the Microsoft Access screen (Figure F-3). Ensure that the first option, Create table in Design view, is selected.
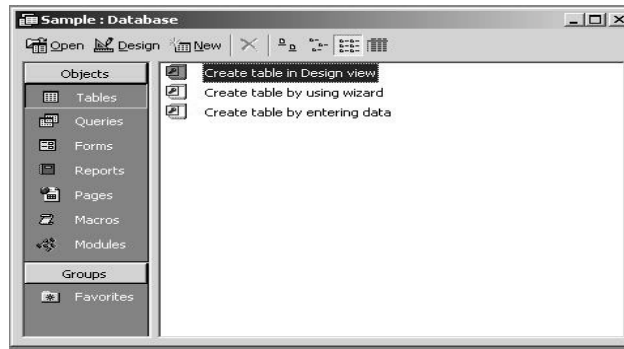
Figure F-6.   Create Table

7.   Now refer to the menu bar on the Microsoft Access Screen (Figure F-7) upon which this dialog box appears.
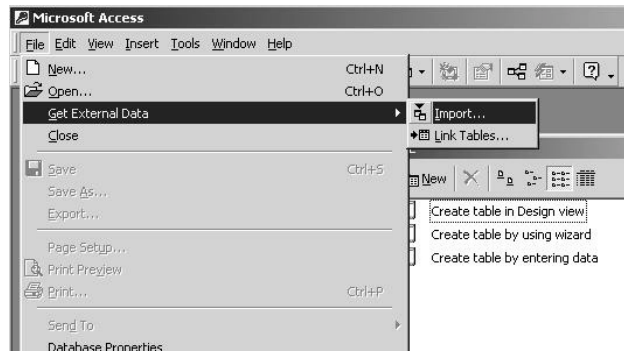

Figure F-7.   Choose Import Option

8.   From the menu bar, choose File. Scroll down the menu options and select the option, Get External Data, and the sub-option, Import. The Import dialog box (Figure F-8, Import) appears.
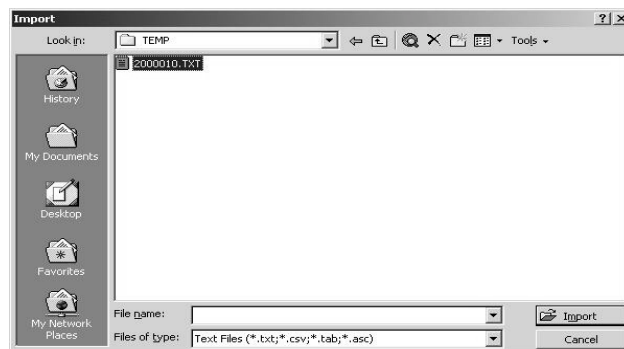

Figure F-8.   Import

9.   In the field titled "File name" at the bottom of the dialog box, name and designate the location of the MCAIMS Student Data text file you wish to import into the Microsoft Access database Table. Note that MCAIMS data export files end with the extension .txt. Then click on **Import**. The Import Text Wizard for Establishing Field Delimiters dialog box (Figure F-9) opens.
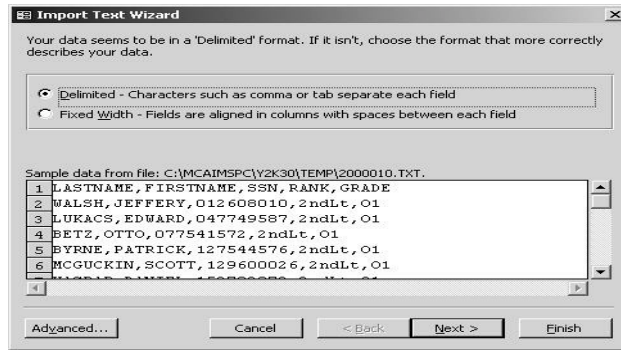
Figure F-9. Establishing Field Delimiters

10. Ensure that the following default radio button is selected: "Delimited - Characters such as comma or tab separate each field." Then click on **Next**. The Import Text Wizard for designating First Row Contains Field Names dialog box(Figure F-10) opens.
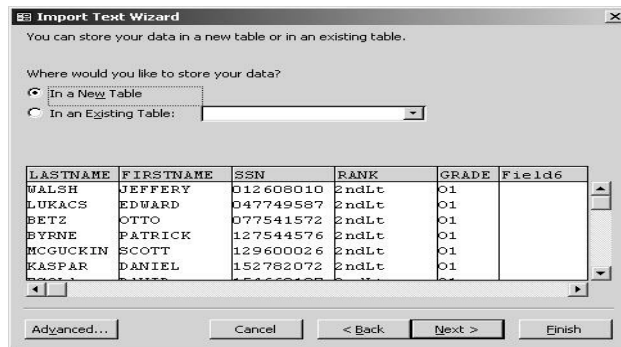

Figure F-10. First Row Contains Field Names

11. Select the radio button beside "Comma" and check the checkbox beside the phrase "First Row Contains Field Names." Then click on **Next**. The Import Text Wizard for Storing Data in a Table dialog box (Figure F-11) opens.

HINT: The checkbox for First Row Contains Field Names enables Microsoft Access to use the field names embedded in the MCAIMS Student Data Export files. Although you are not compelled to use these field names, manually naming the fields significantly increases the difficulty in appending subsequent data exports to an existing Microsoft Access Table.
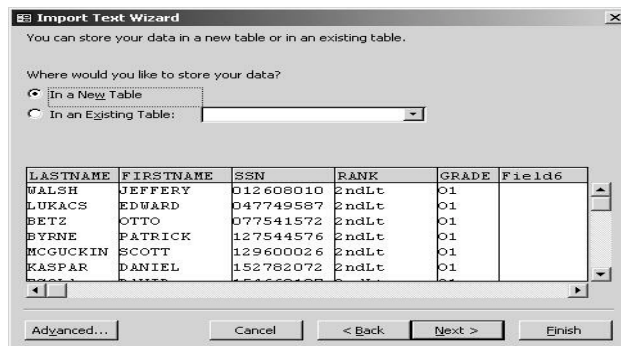

Figure F-11. Storing Data in a Table

12. To store the data from the MCAIMS Student Data Export file in a new table, accept the default selection and click on **Next**. The Import Text Wizard for Specifying Data Type for Each Field Imported dialog box (Figure F-12) appears.
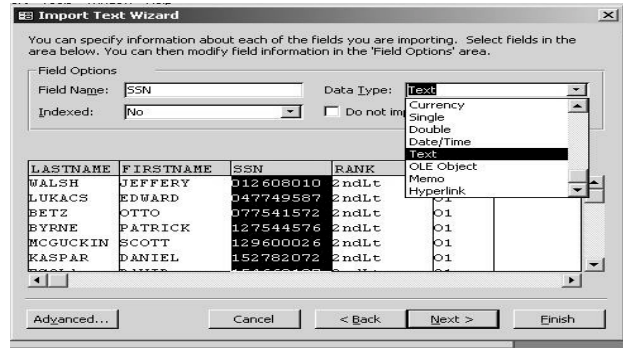

Figure F-12. Specifying Data Type for Each Field Imported

13. Referring to Table F-1, highlight each field of data in the MCAIMS Student Data Export file and review the Data Type. Every field should be identified as either Data Type "Text", "Date/Time", or "Double". Note that Microsoft Access automatically attempts to identify the type of data in each field. However, such automatic identification is not always accurate and may result in data being exported in a less than desirable format.

Table F-1. Store Data in Table

DATA TYPE	DESCRIPTION OF DATA TYPE
Date/Time	MCAIMS Student Data Export files are pre-formatted to use the YYYY/MM/DD date format.
Double	Fields containing numerical data with decimal points should be identified as Data Type "Double". Examples include fields for Grade Point Averages (GPA) and Proficiency/ Conduct marks (Pro/Con). If the last digit in the data to be imported is a zero, it will be truncated (e.g., 97.3750 would be imported as 97.375). Truncation should have no impact on the use of the data internal to Microsoft Access. If the last digit of the data being imported is 1 or greater, the entire number is imported (e.g., 98.3456 would be imported as 98.3456).
Text	ALL other fields of information from a MCAIMS Student Data Export file MUST be identified and changed as necessary to Data Type "Text." Note that Microsoft Access identifies data from the SSN field as Data Type Long Integer. Unless you change the Data Type for the SSN field to "Text", the leading zeros in any SSN would be deleted (e.g., 0012345678 would be saved to the new database as SSN 12345678).

a. Referring to the Import Text Wizard for Changing Data Type dialog box (Figure 7-13), adjust each Data Type for the highlighted field, as appropriate.

b. Be sure that the data type for SSN is "Text" in the drop-down Data Type box.
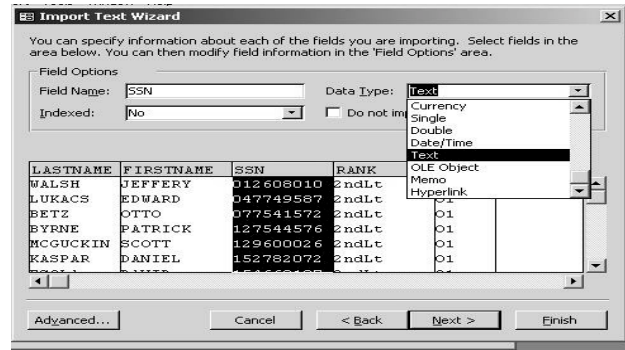
Figure 7-13.   Changing Data Type

14. After ensuring that all rules (depicted in Table F-1) for establishing Data Type have been followed, click on the **Next** button. The Import Text Wizard for Designating Primary Key dialog box (Figure 7-14) opens.

Figure 7-14.   Designating Primary Key

15. Stipulate the "Primary Key" for the database to be created. You may want to review the Microsoft Access documentation about using the Primary Key to prepare multiple tables for compatibility. Click on the **Next** button to continue. The Import Text Wizard for Naming the Table dialog box (Figure 7-15) appears.

Figure F-15.   Naming the Table

16. In the Import to Table field, type a name for the table that is to be created. It might be practical to use the name of the MCAIMS Class whose data will populate the Table (e.g., 2001060). Then click on the **Finish** button to complete the process. A message appears to advise you that the system has finished importing the file.

17. Click on the **OK** button. A dialog box appears on the screen with the name of the New Table Added Within Microsoft Access (Figure F-16).
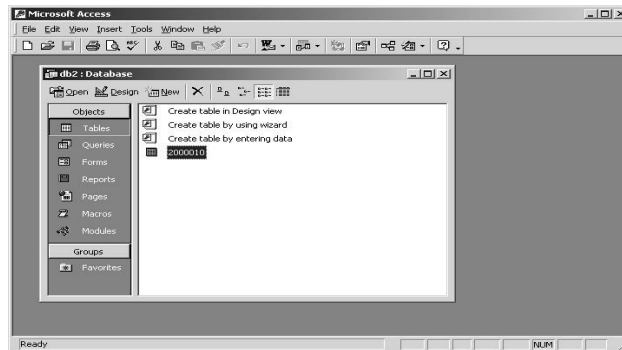

Figure F-16.   New Table Added Within Microsoft Access

At this point the MCAIMS Student Data Export file has been successfully used to create a new Table within Microsoft Access.